What is claimed is:

1. A method for fabricating an inductor structure comprising:

providing a substrate;

forming over the substrate a planar spiral conductor layer to form a planar spiral inductor, wherein a successive series of spirals within the planar spiral conductor layer is formed with a variation in at least one of:

a series of linewidths of the successive series of spirals; and

a series of spacings separating the successive series of spirals.

2. The method of claim 1 wherein by employing within the successive series of spirals within the planar spiral conductor layer the variation in at least one of the series of linewidths of the successive series of spirals and the series of spacings separating the successive series of spirals, the planar spiral inductor is fabricated with an enhanced Q value.

3. The method of claim 1 wherein the substrate is employed within a microelectronic fabrication selected from the group consisting of integrated circuit microelectronic fabrications, ceramic substrate microelectronic fabrications, solar cell optoelectronic microelectronic fabrications, sensor image array optoelectronic microelectronic fabrications and display image array optoelectronic microelectronic fabrications.

4. The method of claim 1 wherein the successive series of spirals is formed in a shape selected from the group consisting of a triangle, a square, a rectangle, a higher order polygon, a uniform ellipse, a non-uniform ellipse and a circle.

5. The method of claim 1 wherein the planar spiral conductor layer is formed of a conductor material selected from the group consisting of non-magnetic metal, non-magnetic metal alloy, magnetic metal, magnetic metal alloy, doped polysilicon and polycide conductor materials, and laminates thereof.

6. The method of claim 1 wherein the variation in the series of linewidths of the successive series of spirals is an increasing progression of linewidth from a first spiral which defines the center of the planar spiral inductor having a comparatively narrow linewidth to a final spiral which defines the perimeter of the planar spiral inductor having a comparatively wide linewidth.

7. The method of claim 6 wherein the comparatively narrow linewidth is from about 7 to about 10 microns and the comparatively wide line width is from about 17 to about 21 microns.

8. The method of claim 1 wherein the successive series of spirals comprises from about 1 to about 8 spirals.

9. An inductor structure comprising:

a substrate;

a planar spiral conductor layer formed over the substrate to form a planar spiral inductor formed over the substrate, wherein a successive series of spirals within the planar spiral conductor layer is formed with a variation in at least one of:

a series of linewidths within the successive series of spirals; and

a series of spacings separating the successive series of spirals.

10. The inductor structure of claim 9 wherein the substrate is employed within a microelectronic fabrication selected from the group consisting of integrated circuit microelectronic fabrications, ceramic substrate microelectronic fabrications, solar cell optoelectronic microelectronic fabrications, sensor image array optoelectronic microelectronic fabrications and display image array optoelectronic microelectronic fabrications.

11. The inductor structure of claim 9 wherein the successive series of spirals is formed in a shape selected from the group consisting of a triangle, a square, a rectangle, a higher order polygon, a uniform ellipse, a non-uniform ellipse and a circle.

12. The inductor structure of claim 9 wherein the planar spiral conductor layer is formed of a conductor material selected from the group consisting of non-magnetic metal, non-magnetic metal alloy, magnetic metal, magnetic metal alloy, doped polysilicon and polycide conductor materials, and laminates thereof.

13. The inductor structure of claim 9 wherein the variation in the series of linewidths of the successive series of spirals is an increasing progression of linewidth from a first spiral which defines the center of the planar spiral inductor having a comparatively narrow linewidth to a final spiral which defines the perimeter of the planar spiral inductor having a comparatively wide linewidth.

14. The inductor structure of claim 13 wherein the comparatively narrow linewidth is from about 7 to about 10 microns and the comparatively wide line width is from about 17 to about 21 microns.

15. The inductor structure of claim 9 wherein the series of spirals comprises from about 1 to about 8 spirals.

Add C 17